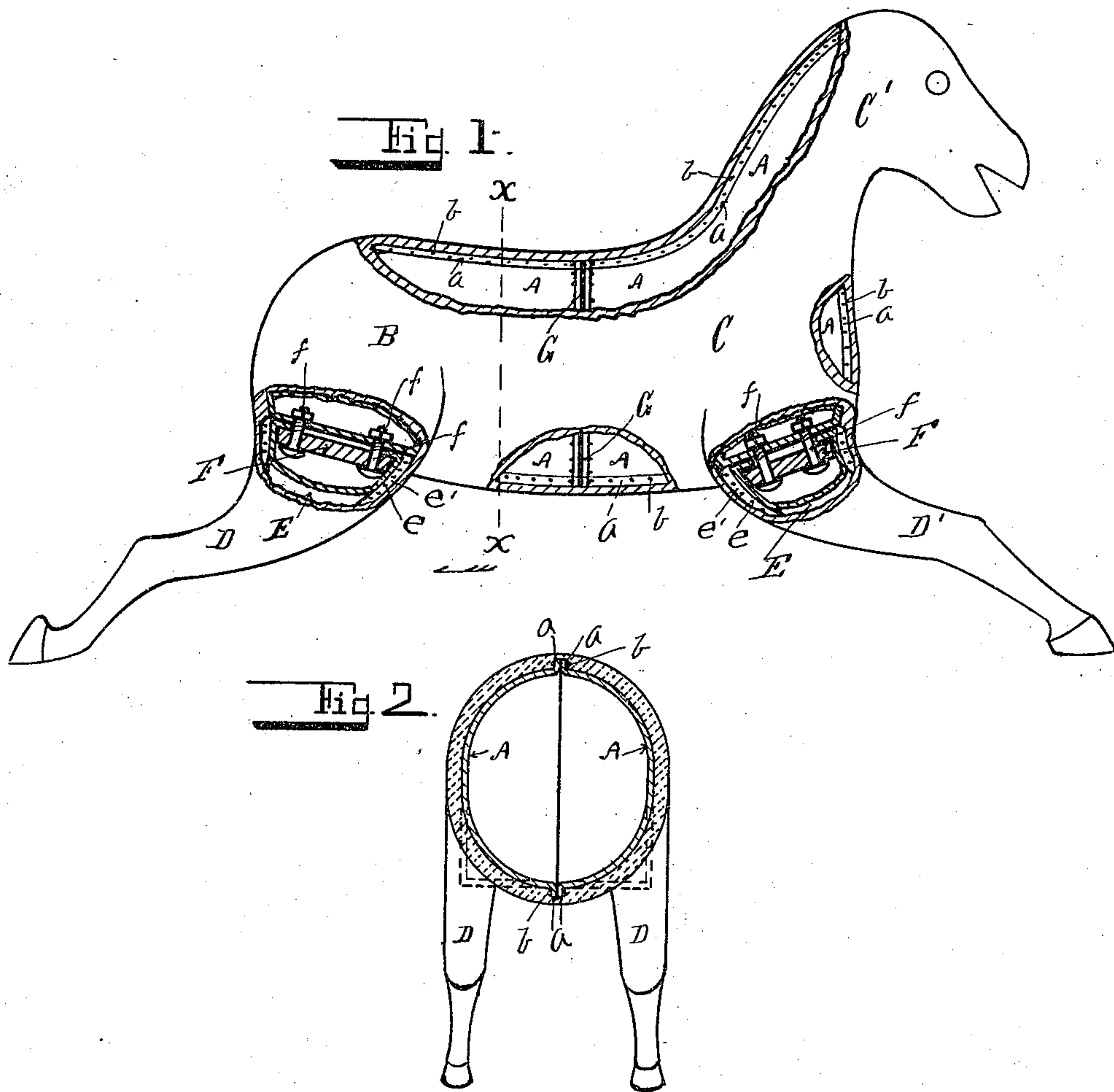


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 PROCESS OF CONSTRUCTING IMAGES AND HOLLOW ARTICLES.  
 APPLICATION FILED MAR. 26, 1910.

983,582.

Patented Feb. 7, 1911.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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PROCESS OF CONSTRUCTING IMAGES AND HOLLOW ARTICLES.

983,582.

Specification of Letters Patent.

Patented Feb. 7, 1911.

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*To all whom it may concern:*

Be it known that I, ALFRED THOMPSON, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Processes of Constructing Images and Hollow Articles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to an improved process of manufacture of hollow images and other hollow articles, and consists substantially in making such articles, by first forming up a hollow inside shell, of plain or expanded sheet metal, or woven wire, and then placing on the surface thereof a layer or covering of suitable material of a plastic nature, the image being then either placed in a mold of suitable inside configuration for forming the surface of the finished article and subjected to suitable pressure to properly shape the surface thereof, or the surface may be otherwise shaped as may be deemed most desirable; after which it is allowed to dry and harden, and can then be painted and otherwise finished as desired. In this manner I am enabled to construct an image of light weight and at the same time one in which there will be a maximum of stability.

The features of my improved process are hereinafter fully set forth and explained, and are illustrated in the accompanying drawings in which:

Figure 1 is a view in elevation of an image (a hobby-horse) with parts broken away, illustrating my improved process. Fig. 2 is a transverse section of the same, on the line  $x-x$  in Fig. 1.

In the accompanying drawings, I have shown the figure of a hobby-horse as illustrative of my improved process of constructing hollow images, and other hollow articles. In the construction of this image I press and form up sheet or expanded metal or woven wire in suitable dies into sections of the inside shell A of the body portion of the image, preferably making this inside shell A in four parts in order to conveniently secure the parts of the image together as herein-

after described. I then bring together the two half sections forming the rear half of the body portion B, and the two half sections forming the inside shell of the front half C and the head portion C', and secure these half sections together by means of rivets  $b$  passing through out-turned flanges  $a$  thereon, or in any other suitable manner. In making the legs D, D' of this image, I press and form up sheet or other metal in suitable dies into longitudinal half sections of the inside shells E thereof, these half sections being preferably provided with a block F in the upper ends thereof and bolts  $f$ , for subsequently securing the legs D D' to the body halves B and C. These halves of the inside shells E of the legs D D' are then secured together by means of rivets  $e$  through flanges  $e'$  thereon, or in any other suitable manner. The outer surfaces of these parts of the inside shells A A of the body portions B and C, and the inside shells E of the legs D D' are then covered, either by dipping or painting it thereon, with an adhesive fluid, preferably compounded of silicate of soda, glue water, and alum water compounded in substantially the following proportions, viz: one pound each of alum and glue; one half gallon of silicate of soda; and one gallon of water. I then place upon the sticky surface so formed, as much mineral wool or asbestos wool, as will adhere thereto. I then saturate this woolly surface with said compound of silicate of soda, glue water, and alum water, and dust thereon a coating of fine, clean wood saw-dust, or other suitable granulated material. Each of said sections B, C, C' and the legs D D', are then preferably placed in suitable molds having suitable inside configurations and pressed into shape and removed therefrom and allowed to dry and harden. To prevent this covering sticking to the mold I preferably place a layer of thin cloth in the mold before each part of the image is placed therein, which cloth can be quickly removed from the outside surface of the part after it is removed from the mold. The legs D are then secured to the rear body sections B and the legs D' are secured to the front body section C, after which the body sections B and C are secured together by means of the flanged annular joint G so as to complete the structure. The annular joint G and the joints where the legs D and D' connect with the body B—C are then puttied up with a putty formed of



material such as fine saw-dust and silicate of soda, and smoothed down to correspond with the remainder of the body and leg covering, after which the whole structure can be painted or otherwise decorated as may be desired. In this manner I am enabled to make a hollow image, or other article, so that the entire shell including the final covering and finished surface is approximately one fourth of an inch in thickness, and thereby I secure an article of very light weight, yet very strong and serviceable.

It is manifest that in making many forms of hollow articles, some of the details of construction herein described may be omitted, for example, the making of the body in sections to facilitate the securing of the legs thereto, as the body can with equal convenience be made without the central annular joint and in lieu thereof openings left in the surface of the body through which access can be had to the inside leg fastenings, or the legs may be fastened to the body by outwise fastenings entirely.

Therefore what I claim as new, and desire to secure by Letters Patent is:

1. The process of making hollow images and other hollow articles consisting substantially of forming up an inside shell of suitable material, coating the same with a sticky adherent fluid material, placing a coating of mineral wool thereon, then saturating the

same with said sticky fluid material, then covering the same with a coating of granulated material and pressing the same in a mold, substantially as set forth.

2. The process of making hollow images and other hollow articles consisting of forming up an inside shell in sections, covering the surface of said shell-sections with an adhesive fluid, applying mineral or asbestos wool thereto, saturating said wool with an adhesive fluid, applying granulated material to said surface, pressing said sections in molds to shape the surfaces thereof, and securing said sections together, substantially as set forth.

3. The process of making hollow images and other hollow articles consisting substantially of forming up an inside shell or metal, covering the surface thereof with an adhesive mixture of silicate or soda, glue-water and alum-water, placing mineral or asbestos wool thereon, saturating the same with adhesive mixture, coating the surface thereof with granulated material, and inserting the same into molds to shape the surface thereof, substantially as set forth.

In testimony whereof I affix my signature, in presence of two witnesses.

ALFRED THOMPSON.

Witnesses:

H. M. STURGEON,  
WILLIAM E. HIRTS.